

Amendment Under 37 C.F.R. §1.111
Application No. 09/943,610

ExxonMobil Ref. No. 2001B081

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of making light olefins, comprising contacting an oxygenate feed with ~~at least two different zeolite catalysts to form an olefin composition, wherein a first zeolite catalysts~~ catalyst comprising a ZSM-5 molecular sieve to form a first product; and
contacting at least a portion of the first product with a second zeolite catalyst comprising a zeolite molecular sieve selected from the group consisting ~~essentially~~ of ZSM-22, ZSM-23, ZSM-35, ZSM-48, and mixtures thereof to form a second product.

2. (Original) The method of claim 1, wherein the oxygenate feed contains at least 70 wt.% oxygenate.

3. (Original) The method of claim 1, wherein the oxygenate feed contains at least 80 wt.% oxygenate.

4. (Original) The method of claim 1, wherein the oxygenate feed contains at least 90 wt.% oxygenate.

5. (Canceled).

6. (Currently Amended) The method of claim 1, wherein the ZSM-5 molecular sieve is selected from the group consisting ~~essentially~~ of an unmodified ZSM-

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5, a phosphorous modified ZSM-5, a steam modified ZSM-5 having a micropore volume reduced to not less than 50% of that of the unsteamed ZSM-5, and mixtures thereof.

7. (Canceled).

8. (Canceled).

9. (Currently Amended) The method of claim 1, wherein the second zeolite catalyst comprises ~~at least one of the~~ a zeolite molecular sieves sieve selected from the group consisting ~~essentially~~ of ZSM-22, ZSM-35, and mixtures thereof.

10. (Currently Amended) The method of claim 1, the second zeolite catalyst ~~contains~~ comprises a ZSM-35 molecular sieve.

11. (Canceled).

12. (Currently Amended) The method of claim 1, wherein the ~~oxygenate feed is contacted with the at least two~~ first and second zeolite catalysts are mixed together in one reactor.

13. (Currently Amended) The method of claim 1, wherein the oxygenate feed is contacted in a first bed containing the first zeolite catalyst ~~comprising a ZSM-5 molecular sieve~~ and the first product is contacted in a second bed containing the second zeolite catalyst comprising ZSM-22 molecular sieve, ZSM-35 molecular sieve, or mixtures thereof.

14. (Currently Amended) The method of claim 1, wherein the ~~oxygenate feed is contacted with the at least two~~ first and second zeolite catalysts are in separate reactors in series.

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15. (Currently Amended) A method of making an olefin composition comprising:

contacting an oxygenate with a first zeolite catalyst comprising a ZSM-5 molecular sieve to form an a first olefin product;

separating a butylene containing stream from the first olefin product; and

contacting the butylene containing stream with a second zeolite catalyst comprising a zeolite molecular sieve selected from the group consisting of ZSM-22, ZSM-23, ZSM-35, ZSM-48, and mixtures thereof to form a second olefin product.

16. (Original) The method of claim 15, wherein the butylene containing stream contains at least 20 wt.% butylene.

17. (Original) The method of claim 16, wherein the butylene containing stream contains at least 40 wt.% butylene.

18. (Original) The method of claim 15, wherein the butylene containing stream contains at least 50 wt.% butylene.

19. (Canceled).

20. (Previously Amended) The method of claim 15, wherein the ZSM-5 is selected from the group consisting of unmodified ZSM-5, a phosphorous modified ZSM-5, a steam modified ZSM-5 having a micropore volume reduced to not less than 50% of that of the unsteamed ZSM-5, and mixtures thereof.

21. (Canceled).

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22. (Currently Amended) The method of ~~claim 1~~ claim 15, wherein the first zeolite catalyst contains a ZSM-5 molecular sieve and the second zeolite catalyst comprises ZSM-22 molecular sieve, ZSM-35 molecular sieve or mixtures thereof.

23. (Previously Amended) The method of claim 15, wherein the oxygenate is contacted with the first zeolite in a fluidized-bed or riser reactor.

24. (New) The method of claim 1, wherein the oxygenate comprises methanol and the second product comprises the light olefins.

25. (New) The method of claim 15, wherein the oxygenate comprises methanol and the second olefin product comprises light olefins.